UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/811,388	03/20/2001	Takehiro Morishige	520.39903X00	4092

24956 7590 11/20/2006

MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.
1800 DIAGONAL ROAD
SUITE 370
ALEXANDRIA, VA 22314

EXAMINER	
NAWAZ, ASAD M	

ART UNIT	PAPER NUMBER
2155	

DATE MAILED: 11/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/811,388	MORISHIGE ET AL.	
	Examiner	Art Unit	
	Asad M. Nawaz	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-692)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the arguments filed 8/21//06. No claims were added, canceled or amended. Accordingly, claims 1-13 are pending.

Response to Arguments

2. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramasubramani et al (USPN: 6,507,589) further in view of Ryu et al (USPN: 6,775,291).

As per claim 1, Ramasubramani teaches an information providing method on a communication network including a server (21 8, fig. 2) for providing information service, a gateway (214, fig. 2) apparatus and a mobile packet communication network accommodating a mobile terminal (202, fig. 2), the method comprising the steps of (col1. 5, lines 61-66., col. 6, lines 25-29):

making a request to set management information to said gateway apparatus in an execution process of a procedure for accommodating the mobile terminal to said mobile packet

communication network (col. 4, lines 19-30; col. 5, lines 61-66; after the mobile device establishes connection with the carrier network 'CN', the CN relays the service requests from the mobile device to the gateway or proxy server (214, fig. 2) for service registering and further processing via the various processes running on the gateway device);

registering management information including a service identifier of the service to be provided to said mobile terminal into a management table by said gateway apparatus in response to reception of said request (col. 4, lines 19-30; upon receiving the service request from the CN on behalf of the mobile client, the gateway device registers the request that allows the mobile device access to its services);

checking whether a service request has been issued to said server with respect to the information service corresponding to the service identifier by said gateway apparatus (col. 6, lines 25-39);

and generating the service request and sending the service request to the server, if the service request has not been issued, by said gateway apparatus to said server to start the service (col. 6, lines 25-39; upon receiving the service request from the mobile client to access data from the information or application provider (218, fig. 2), the gateway device analyzes the request by parsing the data fields in the request packets to determine where to send or relay (e.g., destination address) the request to a particular information provider for data service on behalf of the requesting client and returns the response data to the client); packet transferring means for specifying when a packet including service information is received from said server, an address of a mobile terminal, to which information service with said received packet is to be provided, based on said management table and transferring said received packet to said mobile packet

communication network by using the address as a destination address (col. 6, lines 25- 39., col. 15, lines 16-17, 60-65; upon receiving data response from the information provider, gateway device sends the response data to the mobile device via the wireless carrier network).

However, Ramasubramani does not explicitly indicate that the method includes a service management node 'SMN' for managing visit location information of the mobile terminal in the mobile packet communication network.

Ryu teaches an SMN within the CN that allows for the management of mobile devices within its network and facilitates communication thereof (Fig 4; col 5, 15-65).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Ryu into those of Ramasubramani to make the system better organized. A network would be more efficient by being better organized when allowing a service management node within a carrier network to manage the communications of mobile devices within the network, as well as, facilitate the mobile device in joining the network.

As per claim 2, Ramasubramani teaches said service management node requests setting of said management informatibn designating at least an address of said mobile terminal and an identifier of information service to be provided (Col. 15, Lines 25-34), and said gateway apparatus registers said management information including the information designated by said setting request and attribute information regarding said mobile terminal obtained from other server, into said management table (Col. 15, Lines 35-43).

As per claim 3, Ramasubramani teaches when a packet including service information is received from said specific server (Col. 15, Lines 44-45, L5O-52), said gateway apparatus refers to said management table and transfers said received packet to said mobile packet

communication network by using the address of said mobile terminal registered as a part of the management information as a destination (Col. 15, Lines 54-65).

As per claim 4, Ramasubramani teaches gateway apparatus has: a first management table for storing, in correspondence with each service identifier, an address of a server operating as a provider of service, a destination address to be attached to a service information packet, and status information indicative of whether a service request has been issued or not (Col. 7, Lines 1-8;Col. 8, Lines 20-35); and a second management table for storing management information regarding said mobile terminal is registered (Col. 16, Lines 59-67. and Col. 17, Lines 1-5), and when a packet including the service information is received from said specific server, said gateway apparatus specifies a service identifier corresponding to said received packet with reference to said first management table, searches said second management table for a management information record including said service identifier to thereby specify an address of a mobile terminal to which said received packet is to be transferred, and transfers said received packet or a duplicate of said received packet to said address (Col. 17, Lines 49-59).

As per claim 5, Ramasubramani teaches a filtering condition is designated in correspondence with a specific service identifier in said first management table (Col. 9, Lines 25-39), and when a packet including service information is received from said specific server, in the case where a filtering condition is designated in correspondence with a service identifier specified in said first management table, said gateway apparatus uses an address of a mobile terminal of which management information satisfies said filtering condition among addresses of mobile terminals specified in said second management table as a destination of said received packet Col. 8, Lines 66-67, Col. 9, Lines 1-7).

As per claim 6, Ramasubramani teaches said second management table permits registration of a plurality of service identifiers with respect to a single mobile terminal (Col. 6, Lines 29-33. A single mobile terminal may have access or subscribe to multiple service providers as illustrated in the examples - email and stock quotes services.)

As per claim 7, Ramasubramani teaches said gateway apparatus converts a destination address of a packet received from said specific server from a global IP address to a local IP address, and transfers the resultant to said mobile packet communication network (Col. 17, Lines 52-59.)

Claim 8 contains similar limitations as claim 1 above and is thus rejected under similar rationale.

As per claim 9, Ramasubramani teaches said gateway apparatus registers the management information regarding a mobile terminal into a management table, location information obtained from a location information server (via the wireless network carrier 'CN') for managing geographical local information of each mobile terminal in said mobile packet communication network is registered as a part of the management information into said management table (Col. 4, Lines 19-30.,.col. 5, lines 61-66, gateway registers mobile clients for data services; the wireless network carrier registers and manages wireless connections between wireless devices and the network; i.e., each CN services and manages its own mobile clients in its geographical location), and when a packet designating a delivery area is received from said server, said gateway apparatus refers to said management table (col. 7, lines 34-37; the gateway configuration table (322, fig. 3) manages services being offered to it plurality of clients (e.g., carrier networks and mobile clients)) to select an address of a terminal to which said received

packet is to be delivered among a group of mobile terminals of which present location is in said designated area, and transfers said received packet to said mobile packet communication network by using said address as a destination address (col. 8, lines 20- 35; the gateway device, via its push agent (302,fig. 3), can deliver messages to its subscribing clients in a particular geographic location being managed by the carrier network).

Claim 10 contains similar limitations as claim 1 above and is thus rejected under similar rationale.

As per claim 11, Ramasubramani teaches a said packet transferring means includes means for receiving a packet including said service information in a multicast packet format from said specific server and transferring the packet in a unicast packet format to a mobile terminal specified by said management table (Col. 6, Lines 1 1-18).

As per claim 12, Ramasubramani teaches a packet transferring means includes means for conveding a destination address of a packet received from said specific server from a global IP address to a private IP address, and transferring the resultant packet to said mobile packet communication network (Col. 17, Lines 39-59. the gateway device, via its routing tables, can perform address translations of its subscribing agents).

Claim 13 contains similar limitations as claim 4 above and is thus rejected under similar rationale.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Asad M. Nawaz whose telephone number is (571) 272-3988. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AMN

SALEH NAJJAR
SUPERVISORY PATENT EXAMINER